

HG Unit 4 Assignment Sheet: Quadrilaterals

ABC'S OF GEOMETRY PROJECT DUE FRIDAY MARCH 23rd, 2012

****Notice that you don't have much homework this unit. Use this time to work on your project.
Do not wait until the last minute!!**

Day	Date	Topics	Homework
1	Mon., 3/5 shortened class schedule due to ACT prep.	3-4: Polygons; sum of interior angles; sum of exterior angles 6-1: Classifying Quadrilaterals	none ☺
	Tues., 3/6 ACT	Worksheet (Day 1 Practice)	none ☺
2	Wed., 3/7 Early Release	6-2: Properties of a parallelogram 6-3: Proving a quadrilateral is a parallelogram	none ☺
	Thurs., 3/8 Mrs. Bowers at conference	Worksheet (Day 2 Practice)	none ☺
3	Fri., 3/9	6-4: Special parallelograms 6-5: Trapezoids	p. 315 8, 14, 16, 18, 20, 26-34 E, 50, 54, 58 p. 322 2-6 E; 20-24 E
4	Mon., 3/12	***** QUIZ ***** 6-5 Kites	p. 322 8-16 E; 28, 32-36 E
5	Tues., 3/13	6-6: Organizing Co-ordinate proofs 6-7: Proof using coordinate geometry	p. 328 1-6 all; 20-24 E p. 176 22, 23, 28 p. 342 2, 6-22 even
6	Wed., 3/14	Review	Finish Review and STUDY
7	Thurs., 3/15	***** TEST *****	

More Practice: a.) Chapter Test p. 342 Exs 1-12 omit 4 & 7

b.) Chapter Review p. 339 1-34

c.) Extra Practice p. 395 1-25

Vocabulary

base angles of a trapezoid

consecutive angles

concave polygon

convex polygon

equiangular polygon

equilateral polygon

exterior angle of a polygon

isosceles trapezoid

midsegment of a trapezoid

(sometimes called the median)

Parallelogram

polygon

rectangle

regular polygon

rhombus

square

trapezoid

Polygon Angle-Sum Theorem: The sum of the measures of the interior angles of an n -gon is $(n - 2)180$.

Polygon Exterior Angle-Sum Theorem: The sum of the measures of the exterior angles of a polygon, one at each vertex, is 180° .

Theorem: Opposite sides of a parallelogram are congruent.
(If-then form: If a quadrilateral is a parallelogram, then its opposite sides are congruent.)

Theorem: Opposite angles of a parallelogram are congruent.

Theorem: The diagonals of a parallelogram bisect each other.

Theorem: If 3 or more parallel lines cut off congruent segments on one transversal, then they cut off congruent segments on every transversal.

Theorem: If the diagonals of a quadrilateral bisect each other, then the quadrilateral is a parallelogram.

Theorem: If one pair of opposite sides of a quadrilateral are parallel and congruent, then the quadrilateral is a parallelogram.

Theorem: If both pairs of opposite sides are congruent, then the quadrilateral is a parallelogram.

Theorem: If both pairs of opposite angles of a quadrilateral are congruent, then the quadrilateral is a parallelogram.

Theorem: Each diagonal of a rhombus bisects two angles of the rhombus.

Theorem: The diagonals of a rhombus are perpendicular.

Theorem: The diagonals of a rectangle are congruent.

Theorem: If one diagonal of a parallelogram bisects two angles of the parallelogram, then the parallelogram is a rhombus.

Theorem: If the diagonals of a parallelogram are perpendicular, then it is a rhombus.

Theorem: If the diagonals of a parallelogram are congruent, then it is a rectangle.

Theorem: The base angles of an isosceles trapezoid are congruent.

Theorem: The diagonals of an isosceles trapezoid are congruent.

Theorem: The diagonals of a kite are perpendicular.

Theorem: The midsegment (some books call it a median) of a trapezoid is
(1) parallel to the two bases and
(2) half as long as the sum of the two bases.
(midsegment of a trapezoid: segment joining the midpoints of the nonparallel sides)

Theorem: The midsegment of a triangle is parallel to the third side and half of its length. (already learned in Unit 3)
(midsegment of a triangle joins the midpoints of two sides)